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**Effect of Sustainability Criteria on Procurement Practices Within the
Construction Supply Chain: A Case Study of El Seif Engineering
Contracting Company in Riyadh City**

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1. Abstract

This study investigates the impact of sustainability criteria on procurement practices within the construction supply chain, with a focus on El Seif Engineering Contracting Company in Riyadh City. The construction industry's significant environmental, social, and economic impact necessitates sustainable procurement practices. However, research in this context, especially in Saudi Arabia, is limited.

The study aims to identify key sustainability criteria in the construction supply chain, explore factors influencing the consideration of these criteria in procurement, and assess the challenges faced in implementing sustainable procurement practices. It also evaluates the impact of sustainability criteria on procurement decisions among a sample of 68 individuals and offers practical recommendations for improvement.

The research employs a mixed-methods approach, utilizing surveys and qualitative interviews to collect data. Survey results indicate that sustainability is considered important in procurement, with varying views on its competitive advantage. There is agreement that sustainability criteria influence supplier choices and procurement costs, though supplier relationships show mixed responses. Challenges include balancing cost with sustainability and verifying supplier claims.

The study highlights the need for improved employee training and awareness regarding sustainability in procurement. Recommendations include enhancing training programs, developing better evaluation mechanisms for sustainability claims, strengthening supplier engagement aligned with sustainability goals, and emphasizing continuous improvement in sustainability practices.

However, the study has limitations, including its spatial and temporal constraints, potential biases from employee perceptions, and the subjective nature of qualitative research. Nonetheless, it offers valuable insights into sustainable procurement within the construction industry and provides a foundation for further research in this field.

2. Introduction

The construction industry has a significant impact on Triple Bottom Line (TBL) the environment, society, and the economy. It is a major contributor to greenhouse gas emissions, water consumption, and waste production. It is also a major source of pollution and occupational hazards. To mitigate its negative impacts, the construction industry can adopt sustainable practices in procurement.

Sustainable procurement is a key way to reduce the environmental and social impact of the construction industry. It involves selecting and purchasing goods and services that have a lower environmental and social impact than traditional goods and services. It also involves considering the sustainability performance of suppliers and products throughout the procurement process.

The construction supply chain is complex and involves a wide range of stakeholders, including contractors, subcontractors, suppliers of materials and equipment, and clients. It is important to understand how sustainability criteria are considered in procurement practices at all levels of the supply chain.

El Seif Engineering Contracting (ESEC) is one of the leading contracting companies in Saudi Arabia of high-rise towers using the latest international construction techniques and advanced systems to deliver landmark and smart tower projects. Having been established in 1975, landmark projects include the Kingdom Tower in Saudi Arabia's capital city Riyadh which stands at over 300 meters high, several towers at King Abdullah Financial District, as well as other towers and high-rise buildings in Dubai and Beirut.

El Seif offers a wide range of services which includes general contracting, projects construction management, design & build services, engineering, procurement and construction (EPC), international procurement, logistics, Public-Private Partnership (PPP), Build-Operate-Transfer (BOT) and Build-Own-Operate-Transfer (BOOT) projects as well as operation and maintenance contracts covering extensive list of project types.

<https://www.constructionweekonline.com/lists/271559-el-seif-engineering->

[contracting-company](#))

El Seif's selection for this case study is pivotal. My role as a Procurement Engineer ensures insider insights and direct access to procurement practices. The case study bridges theory and practice, showcasing how sustainability criteria are integrated into daily procurement operations.

3. Research problem

Despite the growing importance of sustainable procurement, there is a lack of research on the effect of sustainability criteria on procurement practices in the construction industry in Saudi Arabia. This research will address this gap by exploring the effect of sustainability criteria on procurement practices within the construction supply chain in Riyadh City, Saudi Arabia. It will focus on the case study of El Seif Engineering Contracting Company, which is one of the largest construction companies in Saudi Arabia. Thus, the core challenge of this study revolves around addressing the question: **How Can to Effect of Sustainability Criteria on Procurement Practices Within the Construction Supply Chain in El Seif?**

4. The importance of the Study

This study contributes to a deeper understanding of sustainable procurement practices in the construction industry in Saudi Arabia, particularly in Riyadh City. It aims to fill a gap in the existing literature by examining the influence of sustainability criteria on procurement practices within the construction supply chain. By delving into the factors that drive the adoption of sustainable procurement practices, evaluating their impact on supply chain operations, and providing actionable recommendations, this study offers valuable insights for both academic research and industry practice.

5. Objectives of the Study

1. Identify the key sustainability criteria considered by construction companies in Saudi Arabia.
2. Explore the factors that influence the consideration of sustainability criteria in procurement practices within the construction supply chain in El Seif Engineering Contracting Company.
3. Identify the barriers and challenges to implementing sustainable procurement practices in the construction supply chain in El Seif Engineering Contracting Co.
4. Evaluate the impact of sustainability criteria on procurement practices within the construction supply chain in El Seif Engineering Contracting Co., gauging their influence on decision-making and overall strategies.
5. Provide practical recommendations for how El Seif Engineering Contracting Company can improve its procurement practices to integrate sustainability criteria more effectively.

This research contributes not only to academic knowledge but also offers a roadmap for improving sustainability in El Seif Engineering Contracting Co. within construction supply chain. The study aims to positively impact procurement decisions, fostering a more sustainable construction industry.

6. Study questions

1. What are the key sustainability criteria in the construction supply chain in Saudi Arabia?
2. How do various factors influence the consideration of sustainability criteria in procurement practices?

3. What are the barriers and challenges to implementing sustainable procurement practices in the construction supply chain in El Seif Engineering Contracting Co.?
4. What is the perceived impact of sustainability criteria on procurement practices?
5. What specific strategies can El Seif Engineering Contracting Company implement to improve its procurement practices by integrating sustainability criteria?

7. Previous studies and theoretical framework

7.1. Sustainable Procurement in the Construction Industry

The construction industry, a significant contributor to environmental degradation and resource depletion, is witnessing a growing emphasis on sustainable procurement practices. Walker and Preuss (2008) argue in "Achieving Sustainable Procurement in Construction Projects: The Pivotal Role of a Project Management Office" that the traditional linear model of procurement must evolve to incorporate sustainability dimensions. Recent studies by Chan and Lam (2020) highlight the shift towards sustainable procurement as a strategic approach that considers not only economic factors but also environmental and social impacts throughout the supply chain.

7.2. Sustainability Criteria

Understanding key sustainability criteria is imperative for effective sustainable procurement. Carter and Rogers (2008) and Hervani et al. (2005) suggest a diverse range of criteria, including carbon footprint, waste reduction, ethical sourcing, and social responsibility. For instance, initiatives like LEED certification for buildings and the use of recycled materials in construction projects are practical examples, illustrating the industry's commitment to reducing environmental impact.

7.3. Procurement Practices

Existing procurement practices in the construction industry reveal a mix of traditional and emerging approaches. O'Brien et al. (2019) shed light on the prevalent use of Design-Bid-Build (DBB) models and the challenges they pose to sustainable practices. In contrast, studies by Loosemore et al. (2019) explore alternative models like Design-Build (DB) and Public-Private Partnerships (PPPs), emphasizing their potential for integrating sustainability considerations. Barriers and challenges, such as resistance to change and lack of awareness, hinder widespread adoption, necessitating further exploration.

7.4. Impact of Sustainability Criteria on Procurement Practices

Research investigating the impact of sustainability criteria on procurement practices provides valuable insights. Andersen et al. (2016) conducted a longitudinal study, revealing a positive correlation between the adoption of sustainability criteria and improved environmental performance in construction projects. Additionally, findings from a meta-analysis by Smith and Biesenthal (2018) suggest that organizations embracing sustainability criteria experience enhanced reputation and stakeholder relationships, influencing procurement decision-making. It is crucial to delve into the economic benefits of sustainable procurement, addressing considerations that impact decision-makers in the construction industry.

7.5. Construction Supply Chain Management

Central to sustainable procurement is the effective management of the construction supply chain. Christopher (2005) and Mollenkopf and Closs (2005) emphasize the significance of integrating sustainability into supply chain management processes. Their work underscores the need for collaborative efforts, transparency, and information sharing among supply chain partners to achieve sustainability goals in the construction industry. Exploring the role of technology and innovation in

enabling sustainable procurement within the construction supply chain is essential. Technologies such as blockchain for supply chain transparency and Building Information Modeling (BIM) for enhanced collaboration have shown promise in facilitating the implementation of sustainable practices.

7.6. Case Study of El Seif Engineering Contracting Company

The case study of El Seif Engineering Contracting Company serves as a focal point, offering a real-life illustration of how sustainability criteria influence procurement practices in the construction supply chain. This in-depth qualitative study, conducted by Anosike et al. (2012), aimed to gain a deeper understanding of the obstacles to sustainable procurement from the perspective of this prominent private contractor. The company, with a well-established track record of prioritizing sustainability and receiving awards for its efforts, provides a rich context for exploring sustainable procurement measures in ongoing or completed construction projects (Ridder, 2017).

The results of this case study revealed that specific sustainability criteria, including environmental, social, and economic factors, were considered. The organization identified factors influencing their consideration of sustainability criteria, such as government regulations and policies, client demands and expectations, and industry best practices. However, challenges to implementation, including limited awareness and understanding of sustainable practices, financial implications, and difficulties within the supply chain, were also evident.

These findings support previous research emphasizing the obstacles and opportunities associated with integrating sustainability criteria into procurement practices in the construction industry (Sarkis et al., 2012). The implications for

sustainable procurement in the industry are substantial, underscoring the need for greater awareness and understanding of sustainable practices, as well as the importance of addressing financial implications and supply chain challenges.

In summary, this comprehensive literature review showcases a dynamic landscape of sustainable procurement in the construction industry. From redefining traditional procurement practices to exploring the multifaceted impact of sustainability criteria, the reviewed literature provides a foundation for understanding the complexities and opportunities in fostering sustainability within the construction supply chain. However, while substantial progress has been made, gaps remain in understanding the nuanced interactions and contextual factors influencing sustainable procurement practices, providing fertile ground for further research.

8. Theoretical premises of study

The following research hypotheses will be tested:

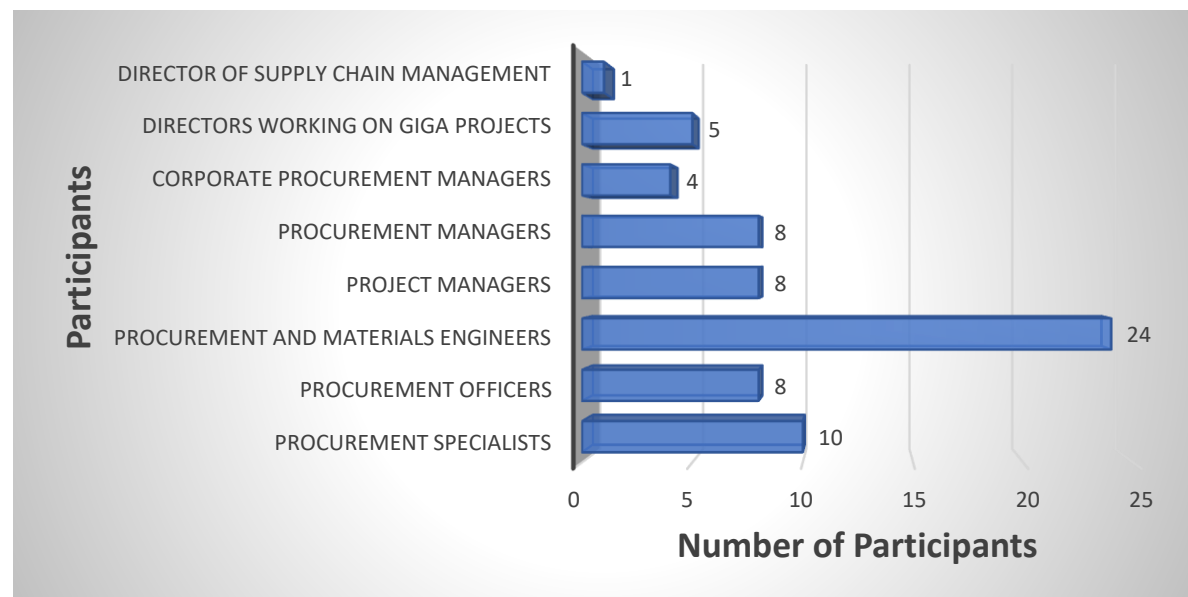
- H1: There is a positive relationship between the use of sustainability criteria in procurement practices and the sustainability performance of the construction supply chain.
- H2: The factors that influence the consideration of sustainability criteria in procurement practices include government policies and regulations, organizational culture, and supplier availability.
- H3: The impact of sustainability criteria on procurement practices within the construction supply chain in Riyadh City is positive.
- H4: El Seif Engineering Contracting Company can improve its procurement practices by integrating sustainability criteria.

9. Methodology and research methods

This research will be conducted using a mixed-methods approach on non-random sampling, which it means judgmental (or purposive) sampling. The quantitative data will be collected through a survey in El Seif Engineering Contracting Co.. The qualitative data will be collected through interviews with key stakeholders in the construction supply chain, including representatives of El Seif Engineering Contracting Company.

The survey will be used to collect data on the following:

9.1. Quantitative Survey:



As shown on **Figure** The participant sample for this research was carefully selected to encompass a diverse range of roles within El Seif Engineering Contracting Company. The total of the sample is 68 person, included 1 Director of Supply Chain Management, 5 Directors working on Giga Projects, 8 Project Managers, 4 Corporate Procurement Managers, 8 Procurement Managers, 24 Procurement and Materials Engineers, 10 Procurement Specialists, and 8 Procurement Officers. This comprehensive selection of participants ensured a holistic examination of sustainability criteria within procurement practices, capturing insights from key decision-makers, managers, and specialists.

The research incorporated a meticulously designed set of Likert scale questions to gauge participants' perceptions, attitudes, and opinions regarding sustainability criteria in procurement practices. These Likert scale questions were thoughtfully crafted to encompass various dimensions of sustainability, and build on 6 sections ensuring a comprehensive assessment of beliefs and perspectives. The Likert scale featured five response options, allowing participants to express their views on a spectrum ranging from "Strongly Disagree" to "Strongly Agree."

9.2. Qualitative Interviews:

The qualitative aspect of the study involved in-depth interviews with three key stakeholders from the top management at El Seif Engineering Contracting Company. These individuals were chosen for their strategic roles in decision-making and their deep understanding of the company's procurement practices. These interviews included discussions with the Director of SCM, a Senior Project Manager, and a Corporate Procurement Manager. Each, in their role offered vital insights into the intersection of sustainability and procurement.

Interviewee A - Director of SCM (Supply Chain Management):

- **Q1.** How does sustainability factor into your procurement decision-making process?
- **Answer:** "Sustainability is a core aspect of our procurement strategy. We evaluate suppliers not only on cost but also on their environmental impact and ethical practices."
- How do you address conflicts between cost-effectiveness and sustainability?"

- Answer: "It's a tough balance. Sometimes, we have to make difficult choices when cost and sustainability goals are in conflict. We prioritize sustainability but also have to consider our budget constraints."
- **Quote:** "In every decision, sustainability is as important as cost and quality. It's a challenging but essential balance. Also, there are times when we can't go for the greenest option due to cost. It's about finding the best middle ground."

Interviewee B - Senior Project Manager:

- **Q1.** How do you ensure that sustainability is not compromised under tight deadlines?
- **A1.** We plan our projects with sustainability in mind from the start. This includes selecting materials and processes that are environmentally friendly. It's challenging, but advanced planning helps maintain our sustainability standards.
- **Q2.** Can you give an example where sustainability impacted your project execution?"
- **A2.** We had a project where using sustainable materials delayed our timeline. It was a learning curve, but it showed us the importance of early planning for sustainability.
- **Quote:** "Sustainability can cause delays, but it's a trade-off for long-term benefits. We learned to plan better for future projects. Sustainability is not an afterthought; it's an integral part of our project planning"

Interviewee C - Corporate Procurement Manger:

- **Q1.** How does the company's sustainability vision translate into day-to-day procurement activities?
- **A1.** Our sustainability vision drives us to continually innovate. We're constantly looking for new, more sustainable materials and methods, and this is reflected in our procurement choices every day.
- **Q2.** What challenges do you face in implementing sustainability initiatives?

- **A2.** One major challenge is getting everyone on board. Changing mindsets and practices takes time, and there's often resistance to new, sustainable methods.
- **Quote:** "Implementing sustainability is as much about changing culture as it is about changing practices. It's a gradual but necessary shift and Every procurement decision is an opportunity to reinforce our commitment to sustainability. It's a continual process of improvement and innovation."

9.3. **Ethical Considerations:**

Throughout the data collection process, ethical considerations, including informed consent, confidentiality, and data protection, were carefully adhered to. Participants were provided with information about the research, its purpose, and the use of their responses. Also, In compliance with the company's request, demographic information was not collected or disclosed in this research.

The interviews will be used to collect more in-depth data on the same topics. The interviews will also be used to explore the experiences of El Seif Engineering Contracting Company with sustainable procurement.

10. **Study tools**

In this study, a mixed-methods approach was adopted for data collection, combining quantitative surveys with qualitative interviews. The survey employed Likert scale questions to quantitatively evaluate El Seif Engineering Contracting Company employees' attitudes and perceptions regarding sustainability in procurement practices. In compliance with the company's request, demographic information was not collected or disclosed in this research. On the qualitative front, semi-structured interviews with key figures in the company, such as the Director of Supply Chain Management and a Senior Project Manager, offered in-depth insights into the real-world application and challenges of implementing sustainable procurement practices. This dual methodology facilitated a comprehensive understanding, capturing both quantifiable data and intricate, qualitative perspectives on sustainability in the company's procurement strategies.

Questions	Section 2: Perceptions of Sustainability in Procurement (%)				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2.1 How important do you believe sustainability is in our procurement practices?	0	3	16	18	63
2.2 To what extent do you agree that sustainability is a key factor in our company's competitive advantage?	6	16	34	25	19
2.3 How strongly do you feel that sustainability criteria improve the quality of procurement decisions?	0	6	23	29	42
2.4 Rate your agreement with the statement: "Sustainability should be a priority in all procurement activities"	4	18	21	19	38
2.5 How significant do you think the role of sustainability is in shaping the future of procurement in our industry?	2	17	24	21	36

11. Results and Discussion:

In the survey for Section 2, as shown on the **table** most respondents recognize the importance of sustainability in procurement. A significant 63% agree or strongly agree that it's crucial in procurement practices. However, there's a notable division regarding sustainability as a competitive advantage, with 34% neutral, suggesting varied views on its direct impact on competitiveness. Overall, while sustainability is seen as important, opinions on its implementation and exact role in the competitive landscape show diversity among employees.

Questions	Section 3: Current Practices and Implementation (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3.1 How well are sustainable criteria currently integrated into our procurement practices?	26	39	27	8	

3.2 Rate the effectiveness of our current strategies for incorporating sustainability into procurement.	17	43	29	11	
3.3 How consistently are sustainability criteria applied in our procurement decisions?	20	35	24	9	12
3.4 To what extent do you believe our procurement policies reflect our commitment to sustainability?	18	33	27	13	9
3.5 How effectively do you think our current procurement practices address environmental concerns?	12	38	24	18	8

In the survey for Section 3, as shown on the **table** most respondents, it's evident that there is a moderate level of agreement among respondents regarding the integration and effectiveness of sustainability in procurement practices. For instance, in question 3.1, about the integration of sustainable criteria, 26% strongly agree and 39% agree, indicating a positive view of the current integration level. However, there's also a notable portion of neutral responses (27%), suggesting some variability or uncertainty in the implementation. This pattern is reflected across other questions in this section, highlighting an overall positive yet varied perception of sustainability's role in current procurement practices at El Seif Engineering Contracting Company.

Questions	Section 4: Challenges and Barriers (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
4.1 Rate the difficulty of balancing cost with sustainability in procurement decisions.	46	34	17	3	
4.2 To what extent do you face obstacles in verifying the sustainability claims of suppliers?	29	47	18	3	3
4.3 How much do you agree that there is a lack of suitable sustainable options in the market?	34	46	16	3	1
4.4 How challenging do you find it to stay updated with sustainable procurement practices?	31	44	24	1	

- In the survey for Section 4 as shown on the **table** about challenges and barriers in sustainability reveals significant concerns. A high percentage of respondents, 46% and 34% respectively, agree or strongly agree that balancing cost with sustainability in procurement is a challenge. Similarly, a significant number, 47% and 29%, agree or strongly agree that verifying the sustainability claims of suppliers presents obstacles. These responses indicate notable difficulties in

implementing sustainable practices, primarily due to cost factors and the reliability of supplier information. The data underscores the need for more effective strategies and resources to overcome these barriers in the pursuit of sustainable procurement.

Questions	Section 5: Impact of Sustainability Criteria (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5.1 How strongly do sustainability criteria influence our choice of suppliers?	23	58	19	0	0
5.2 Rate the impact of sustainability criteria on the overall cost of procurement.	18	63	16	3	0
5.3 How significantly do you think sustainability criteria affect the efficiency of the procurement practices?	19	57	15	7	2
5.4 To what extent do you believe sustainability criteria lead to long-term cost savings?	16	63	19	2	0
5.5 How much do you agree that sustainability criteria have led to better supplier relationships?	2	23	43	32	0

- In the survey for Section 5, as shown on the **table** the impact of sustainability criteria suggests a strong influence on procurement practices within the company. A majority of respondents (81% and 81% for questions 5.1 and 5.2, respectively) agree or strongly agree that sustainability criteria significantly influence supplier choices and impact procurement costs. Moreover, responses to questions 5.3 and 5.4 indicate a belief in the efficiency and long-term cost savings brought by sustainability criteria. However, there are mixed views on improved supplier relationships due to sustainability criteria, with a significant portion (43%) remaining neutral, that is because the most of the suppliers at the market are not apply sustainability criteria. This data highlights the perceived

positive impact of sustainability on procurement practices, though it also points to areas where its benefits may not be fully realized or recognized by all employees.

Questions	Section 6: Training and Awareness (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
6.1 How adequately trained do you feel to make procurement decisions based on sustainability criteria??	9	26	43	19	3
6.2 Rate your understanding of the environmental impact of products and materials used in our projects.	5	19	40	28	8
6.3 How well do you think the company communicates its sustainability goals and practices to employees?	4	16	46	26	8
6.4 To what extent do you believe additional training or resources are needed to better implement sustainable procurement practices?	29	53	14	4	0
6.5 How knowledgeable are you in your ability to assess the sustainability of potential suppliers and products?	19	20	27	34	0

- In the survey for Section 6, as shown on the **table** regarding training and awareness, the responses indicate a moderate level of training and understanding of sustainability among employees. While a majority (35%) feel adequately trained to make decisions based on sustainability criteria, a significant portion (43%) remains neutral, suggesting an area for improvement. Additionally, many employees (40%) are neutral about their understanding of the environmental impact of products and materials, indicating a need for more comprehensive education and awareness. The data highlights a clear demand for additional training and resources, with a combined 82% either agreeing and

strongly agreeing that these are needed to better implement sustainable procurement practices.

12. Conclusion

The research conducted at El Seif Engineering Contracting Company in Riyadh City provides a comprehensive understanding of the effect of sustainability criteria on procurement practices within the construction supply chain. The findings align closely with the study questions and objectives, offering insightful answers and fulfilling the intended research goals.

12.1. Research findings include:

1. **Sustainability Criteria:** Essential criteria like carbon footprint, waste reduction, and ethical sourcing are recognized but need more consistent integration in procurement processes.
2. **Influencing Factors:** Government regulations, client demands, and industry best practices are major influencers in adopting sustainable procurement.
3. **Challenges:** Balancing cost with sustainability and verifying suppliers' sustainability claims are notable challenges.
4. **Impact and Perception:** There is a positive impact of sustainability on procurement decisions, particularly in supplier selection and cost management. However, perceptions vary regarding its role in competitive advantage and supplier relationships.
5. **Training and Awareness:** There's a need for improved training and understanding of sustainability among employees to foster a culture that supports sustainable procurement.

12.2 Recommendations and Future Directions

1. **Training Programs:** Enhanced training programs for employees to increase awareness and understanding of sustainability in procurement.
2. **Evaluation Mechanisms:** More effective strategies and tools to evaluate suppliers' sustainability claims and balance cost with sustainability goals.

3. **Supplier Engagement:** Strengthening relationships with suppliers who align with sustainability goals for a more cohesive supply chain.
4. **Continual Improvement:** Emphasis on continuous improvement in sustainability practices, adapting to new challenges and opportunities.

13. Study Limitation

This study is subject to the following limitations:

- Spatial limitation: The study is limited to El Seif Engineering Contracting Co., which is a construction company located in Riyadh City, Saudi Arabia. The results of the study may not be generalizable to other construction companies in Riyadh City, let alone other construction companies in other countries or industries.
- Temporal limitation: The study is limited to the year 2023. The results of the study may not be generalizable to other years, as sustainability criteria and procurement practices may change over time.
- Human limitation: The study is based on data collected from interviews with employees of El Seif Engineering Contracting Co. The results of the study may be biased by the perceptions and experiences of these employees.
- Subjective limitation: The study is based on a qualitative research methodology, which is subjective by nature. The results of the study may be influenced by the researcher's own biases and interpretations.

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15. Appendixes

6. Abstract

This study investigates the impact of sustainability criteria on procurement practices within the construction supply chain, with a focus on El Seif Engineering Contracting Company in Riyadh City. The construction industry's significant environmental, social, and economic impact necessitates sustainable procurement practices. However, research in this context, especially in Saudi Arabia, is limited.

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The research employs a mixed-methods approach, utilizing surveys and qualitative interviews to collect data. Survey results indicate that sustainability is considered important in procurement, with varying views on its competitive advantage. There is agreement that sustainability criteria influence supplier choices and procurement costs, though supplier relationships show mixed responses. Challenges include balancing cost with sustainability and verifying supplier claims.

The study highlights the need for improved employee training and awareness regarding sustainability in procurement. Recommendations include enhancing training programs, developing better evaluation mechanisms for sustainability claims, strengthening supplier engagement aligned with sustainability goals, and emphasizing continuous improvement in sustainability practices.

However, the study has limitations, including its spatial and temporal constraints, potential biases from employee perceptions, and the subjective nature of qualitative research. Nonetheless, it offers valuable insights into sustainable procurement within the construction industry and provides a foundation for further research in this field.

المخلص

تهدف هذه الدراسة إلى التحقيق في تأثير معايير الاستدامة على ممارسات التوريد داخل سلسلة التوريد في مجال البناء، مع التركيز على شركة إل سيف للهندسة والمقاولات في مدينة الرياض. يتطلب التأثير البيئي والاجتماعي والاقتصادي الكبير لصناعة البناء ممارسات توريد مستدامة. ومع ذلك، يكون البحث في هذا السياق، وخاصة في المملكة العربية السعودية، محدودًا.

تهدف الدراسة إلى تحديد معايير الاستدامة الرئيسية في سلسلة التوريد في مجال البناء، واستكشاف العوامل التي تؤثر في النظر في هذه المعايير في عمليات التوريد، وتقييم التحديات التي تواجه تنفيذ ممارسات التوريد المستدام. كما تقيم تأثير معايير الاستدامة على قرارات التوريد بين عينة تضم 68 فردًا وتقدم توصيات عملية للتحسين.

تعتمد البحث على منهج مختلط يستخدم استطلاعات ومقابلات نوعية لجمع البيانات. تشير نتائج الاستطلاع إلى أن الاستدامة تُعتبر مهمة في عمليات التوريد، مع آراء متباينة حول ميزة التنافسية لها. هناك اتفاق على أن معايير الاستدامة تؤثر في اختيار الموردين وتكاليف التوريد، على الرغم من تباين ردود الفعل فيما يتعلق بعلاقات الموردين. تشمل التحديات التوازن بين التكلفة والاستدامة والتحقق من مطالبات الموردين.

تسلط الدراسة الضوء على ضرورة تحسين تدريب الموظفين وزيادة الوعي بشأن الاستدامة في عمليات التوريد. تشمل التوصيات تعزيز برامج التدريب، وتطوير آليات تقييم أفضل لمطالبات الاستدامة، وتعزيز التعامل مع الموردين متوافق مع أهداف الاستدامة، وتشديد التركيز على التحسين المستمر في ممارسات الاستدامة.

ومع ذلك، تشمل الدراسة قيودًا، بما في ذلك قيود المكان والزمان، والانحيازات المحتملة من آراء الموظفين، والطابع الذاتي للبحث النوعي. على أية حال، تقدم الدراسة رؤى قيمة حول التوريد المستدام في صناعة البناء وتقدم أساسًا للبحث المستقبلي في هذا المجال.

Effect of Sustainability Criteria on Procurement Practices Within the Construction Supply Chain: A Case Study of El Seif Engineering Contracting Company in Riyadh City Survey - استبانة تأثير معايير الاستدامة على ممارسات المشتريات ضمن سلال إمداد البناء: دراسة حالة لشركة السيف مهندسون ومقاولون في الرياض

يعتبر هذا الاستبيان هو جزءاً من بحث التخرج لنيل درجة الماجستير في تخصص إدارة المشاريع – جامعة ميدأوشن. نهدف في هذه الدراسة إلى فهم تأثير معايير الاستدامة على ممارسات المشتريات ضمن سلال إمداد البناء: دراسة حالة لشركة السيف في الرياض، من خلال مساهمتك في الاستبيان يتسنى لنا إلى قياس كيفية اعتماد ممارسات الشراء المستدام وتحديد التحديات وتقييم فعاليتها.

" . نتطلع إلى مساهمتكم القيمة من خلال ملء هذا الاستبيان، ونؤكد أن الوقت المتوقع لاستكماله لا يتجاوز 3-4 دقائق.

مع أطيب التحيات،

This survey is part of a graduation research project for a Master's degree in Project Management at Midocean University. In this study, we aim to understand the impact of sustainability criteria on procurement practices within the construction supply chain: A case study of El Seif Company in Riyadh. Your contribution to this survey will enable us to measure how sustainable procurement .practices are adopted and to identify the challenges and evaluate their effectiveness

We look forward to your valuable contribution by completing this questionnaire, and we assure you that the expected time to .complete it does not exceed 3-4 minutes

,We appreciate your valuable contribution

* Indicates required question

Section 1: Demographic Information

القسم الأول: المعلومات الديموغرافية

1. 1.1 Age:

1.1 العمر:

Mark only one oval.

- ☐ 20-30 Years (سنة)
- ☐ 30-40 Years (سنة)
- ☐ 40-50 Years (سنة)
- ☐ 50-60 Years (سنة)
- ☐ Over 60 years (أكبر من 60 سنة)

2. 1.2 Gender:

1.2 الجنس:

Mark only one oval.

- ☐ Male - ذكر
- ☐ Female - أنثى

3. 1.3 Work Experience:

1.3 الخبرة العملية:

Mark only one oval.

- ☐ Less than 5 years (أقل من 5 سنوات)
- ☐ 5-10 years (سنوات)
- ☐ 10-15 years (سنوات)
- ☐ Over 15 years / (أكثر من 15 سنة)

4. 1.4 Work Experience in Procurement:

1.4 الخبرة العملية في المشتريات

Mark only one oval.

- ☐ None - لا يوجد
- ☐ Less than 5 years (أقل من 5 سنوات)
- ☐ 5-10 years (سنوات)
- ☐ 10-15 years (سنوات)
- ☐ Over 15 years / (أكثر من 15 سنة)

5. 1.5 Job Level (If not Available, Please choose the closest to you):

1.5 "المستوى الوظيفي (إذا لم يكن متاحًا، يرجى اختيار الأقرب إليك)

Mark only one oval.

- ☐ Entry-Level - مستوى مبتدئ
- ☐ Junior - صاحب خبرة قليلة
- ☐ Associate - مساعد
- ☐ Senior - كبير
- ☐ Lead - قائد
- ☐ Manager - مدير
- ☐ Director - مدير تنفيذي
- ☐ Vice President (VP) - نائب الرئيس (نائب الرئيس)
- ☐ Chief Officer (e.g., Chief Executive Officer, Chief Financial Officer) - رئيس مسؤول (على سبيل المثال، الرئيس التنفيذي، الرئيس المالي)

6. 1.6 Job Functional Area (If not Available, Please choose the closest to you): 1.6 مجال الوظيفة
:"(إذا لم يكن متاحًا، يرجى اختيار الأقرب إليك):

Mark only one oval.

- ☐ الدعم المكتبي / الإدارة - Administration/Office Support
- ☐ الموارد البشرية - Human Resources
- ☐ الشؤون المالية / المحاسبة - Finance/Accounting
- ☐ التسويق - Marketing
- ☐ المبيعات - Sales
- ☐ إدارة المشاريع - Project Management
- ☐ إدارة سلاسل الإمداد / Supply Chain Management
- ☐ تطوير الأعمال - Business Development
- ☐ العلاقات العامة - Public Relations
- ☐ التصنيع / الإنتاج - Manufacturing/Production
- ☐ الصحة والسلامة - Health and Safety
- ☐ العمليات / اللوجستيات - Operations/Logistics
- ☐ الهندسة - Engineering
- ☐ تكنولوجيا المعلومات - Information Technology

Section 2: Perceptions of Sustainability in Procurement

القسم 2: تصورات الاستدامة في المشتريات

7. 2.1 How important do you believe sustainability is in our procurement practices?

2.1 ما مدى أهمية الاستدامة في عملية الشراء لدينا؟

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

8. 2.2 To what extent do you agree that sustainability is a key factor in our company's competitive advantage?

2.2 إلى أي مدى توافق على أن الاستدامة هي عامل رئيسي في الميزة التنافسية لشركتنا؟

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

9. 2.3 How strongly do you feel that sustainability criteria improve the quality of procurement decisions?

2.3 ما مدى شعورك بأن معايير الاستدامة تعمل على تحسين جودة قرارات الشراء؟

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

10. 2.4 Rate your agreement with the statement: "Sustainability should be a priority in all procurement activities"

2.4 "قيم موافقتك على العبارة: "يجب أن تكون الاستدامة أولوية في جميع أنشطة المشتريات"

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

11. 2.5 How significant do you think the role of sustainability is in shaping the future of procurement in our industry?

ما مدى أهمية دور الاستدامة في تشكيل مستقبل المشتريات في صناعتنا؟ 2.5

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

Section 3: Current Practices and Implementation

القسم 3: الممارسات الحالية والتنفيذ

12. 3.1 How well are sustainable criteria currently integrated into our procurement practices?

ما مدى دمج معايير الاستدامة حاليًا في ممارسات الشراء لدينا؟ 3.1

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

13. 3.2 Rate the effectiveness of our current strategies for incorporating sustainability into procurement.

قيّم فعالية استراتيجياتنا الحالية لدمج الاستدامة في المشتريات 3.2

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

14. 3.3 How consistently are sustainability criteria applied in our procurement decisions?

ما مدى اتساق تطبيق معايير الاستدامة في قرارات الشراء لدينا؟ 3.3

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

15. 3.4 To what extent do you believe our procurement policies reflect our commitment to sustainability?

إلى أي مدى تعتقد أن سياسات الشراء لدينا تعكس التزامنا بالاستدامة؟ 3.4

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

16. 3.5 How effectively do you think our current procurement practices address environmental concerns?

ما مدى فعالية ممارسات الشراء الحالية لدينا في معالجة المخاوف البيئية؟ 3.5

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

Section 4: Challenges and Barriers

القسم 4: التحديات والعوائق

17. 4.1 Rate the difficulty of balancing cost with sustainability in procurement decisions.

4.1 قِيم مدى صعوبة موازنة التكلفة مع الاستدامة في قرارات الشراء.

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

18. 4.2 To what extent do you face obstacles in verifying the sustainability claims of suppliers?

4.2 إلى أي مدى تواجه عقبات في التحقق من مطالبات الموردين بالاستدامة؟

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

19. 4.3 How much do you agree that there is a lack of suitable sustainable options in the market?

إلى أي مدى توافق على أن هناك نقصاً في الخيارات المستدامة المناسبة في السوق؟ 4.3

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

20. 4.4 How challenging do you find it to stay updated with sustainable procurement practices?

ما مدى صعوبة بقاءك على اطلاع دائم بممارسات الشراء المستدام؟ 4.4

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

Section 5: Impact of Sustainability Criteria

القسم 5: تأثير معايير الاستدامة

21. 5.1 How strongly do sustainability criteria influence our choice of suppliers?

5.1 ما مدى قوة تأثير معايير الاستدامة على اختيارنا للموردين؟

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

22. 5.2 Rate the impact of sustainability criteria on the overall cost of procurement.

5.2 قِيم تأثير معايير الاستدامة على التكلفة الإجمالية للمشتريات.

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

23. 5.3 How significantly do you think sustainability criteria affect the efficiency of the procurement practices?

ما مدى تأثير معايير الاستدامة في رأيك على كفاءة ممارسات المشتريات؟ 5.3

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

24. 5.4 To what extent do you believe sustainability criteria lead to long-term cost savings?

إلى أي مدى تعتقد أن معايير الاستدامة تؤدي إلى وفرة في التكاليف على المدى الطويل؟ 5.4

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

25. 5.5 How much do you agree that sustainability criteria have led to better supplier relationships?

إلى أي مدى توافق على أن معايير الاستدامة أدت إلى علاقات أفضل مع الموردين؟ 5.5

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

Section 6: Training and Awareness

القسم 6: التدريب والتوعية

26. 6.1 How adequately trained do you feel to make procurement decisions based on sustainability criteria?

ما مدى شعورك بالتدريب الكافي لاتخاذ قرارات الشراء بناءً على معايير الاستدامة؟ 6.1

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

27. 6.2 Rate your understanding of the environmental impact of products and materials used in our projects.

قيم فهمك للأثر البيئي للمنتجات والمواد المستخدمة في مشاريعنا 6.2

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

28. 6.3 How well do you think the company communicates its sustainability goals and practices to employees?

إلى أي مدى تعتقد أن الشركة تقوم بتوصيل أهدافها وممارساتها المتعلقة بالاستدامة إلى موظفيها؟ 6.3

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

29. 6.4 To what extent do you believe additional training or resources are needed to better implement sustainable procurement practices?

إلى أي مدى تعتقد أن هناك حاجة إلى تدريب أو موارد إضافية لتنفيذ المشتريات المستدامة بشكل أفضل؟ 6.4

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

30. 6.5 How knowledgeable are you in your ability to assess the sustainability of potential suppliers and products?

ما مدى معرفتك في قدرتك على تقييم استدامة الموردين والمنتجات المحتملة؟ 6.5

Mark only one oval.

- ☐ Strongly Agree موافق بشدة
- ☐ Agree موافق
- ☐ Neutral محايد
- ☐ Disagree غير موافق
- ☐ Strongly Disagree غير موافق بشدة

31. **Kindly, provide any additional comments or insights you may have.** *

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